



National Aeronautics and
Space Administration

John C. Stennis Space Center
Stennis Space Center, MS 39529-6000

SPR 8500.2 Rev. C
November 2013

COMPLIANCE IS MANDATORY

John C. Stennis Space Center Environmental Operations and Implementation Program Procedural Requirements

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Document History Log

Status/Change/ Revision	Change Date	Originator/Phone	Description
SPR 8500.2 Basic Note: The original history of the prior Directive has been retained here to provide clarity and for tracking and reference purposes.	10/22/04	Renay Nelson x-87384	Revalidated and corrected per NASA Rules Review/Changed References to reflect cancellations and revisions and corrected document numbers.
A	12/30/04	J. Gordon x-81416	Update various sections along with the addition of a section on Energy and Water Conservation.
B	10/03/08	J. Gordon x-81416	Update various sections of the document to accommodate the format requirements per SPR 1440.1. Added a section on Homeland Security per 6 CFR Part 27. Deleted Energy Program Responsibilities (prior Appendix C), which shall be incorporated into SPLN-8500-0002 per NASA Energy Manager.
C	11/03/13	J. Gordon x-81416	Throughout: added references to appropriate documentation, corrected SSC form numbers and titles; P.3: corrected document titles, added EO 13514 and 12580; P.4: added SCWI-8500-0017-ENV, SCWI-8500-0019-ENV, SWI-8500-0032-EMS, and SWI-8830-0002; replaced

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			<p>Historic Preservation Plan with SPLN-8500-0090; Chapter 1: clarified and/or added to all responsibilities; Chapter 2: renamed 2.1, inserted as 2.1.2 Other Considerations (Climate Change and GHG Emissions, and Encroachment) and renamed Specific Requirements 2.1.3; 2.2.2 (c) added Air Permit # 1000-00054; 2.3.2 (a) changed 'community, transient' to 'community, non-transient'; (c) updated potable well information to include wells and water tanks from Area 9; 2.4.2 (a) added Wastewater Permit # MS0040797; added to Table 4 information regarding the requirement to obtain General Construction Storm Water Permit; 2.6.2 (b) added requirement to submit Form SSC-696D within 3 working days of discovery; 2.6.3 (c) updated status of CERCLA sites and included information on B3202 PCB site; (d) included information from 2012 5-year regulatory review; 2.7.2 (c) clarified conditions for no minimum quantity exemption at SSC; Table 7 (2.7.3) added 40 CFR 112 as reporting method; 2.8.4 (d) added requirement to submit Form SSC-740; Table 8, changed frequency of notification of PCB activity from 'annually' to 'as required'; 2.9.3 throughout-clarified requirements for Tier II submission and TRI reporting; (b) added hazardous material</p>
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			inventory is maintained electronically in HMIS; Table 9 following changes: report hazardous material inventory in HMIS, SARA Tier II Report-added to responsible party list and changed reporting method to electronic format, and changed Toxic Release Inventory reporting method to electronic format; 2.10.2 added (c); Table 12 updated responsible party for maintaining site inventory of radiation sources; 2.13.2 and 2.13.3-total revision of sections based on requirements of new HPO; Table 13 updated notification requirement for surface and subsurface work; deleted requirement to inspect Logtown, Gainesville, Napoleon and Bayou LaCroix; clarified the description of activities affecting historic properties; 2.15.3 (a) added requirement to transport scrap metal from demolition to Landfill Recycling area; 2.16.2 (g) added EO 13514; Table 16 clarified action/responsible party/reporting method for purchasing sustainable materials, and for requesting waivers to purchase non-compliant items; Appendix A updated Acronyms
Original History			
SPG 8500.2 Basic	12/21/01	RA02/Ronald Magee X-87384	Initial Release
* See note above.			

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PREFACE

P.1 PURPOSE

- a. This document contains procedural requirements for the John C. Stennis Space Center (SSC) to recognize environmental considerations in the planning and execution of projects, programs, or institutional operations. Efforts shall be directed at meeting the requirements associated with Federal, state, and local regulatory concerns as appropriate. The Environmental Staff shall coordinate, primarily through the Environmental Management System Core Team, Environmental Working Group, NASA directorates and offices, resident agencies, contractors, commercial customers, and concessionaires to promote site-wide environmental compliance. Additional information on subject matter in this document may also be found in the Environmental Resources Document (ERD) for SSC.
- b. The procedures under this SPR are to provide the SSC personnel with an overview of compliance issues and to specify actions that are required by NASA, resident agencies, contractors, commercial customers, concessionaires or other contractors prior to initiation of actions which may have the potential to impact environmental media.
- c. In response to Section 103 of the National Environmental Policy Act (NEPA), SSC has issued this SPR as a management tool to define the functional structure for environmental compliance at SSC. It is a guide to direct individuals and/or organizations operating at SSC in the requirements needed to ensure compliance with regulations governing NASA operations.

P.2 APPLICABILITY

- a. This directive is applicable to NASA SSC personnel.
- b. This directive is applicable to contractors, resident agencies, tenants to the extent specified in their respective contractual agreements.
- c. The provisions of this instruction are applicable to the activities of all organizations and personnel at SSC, including NASA, other Federal agencies, state agencies, universities, contractors, concessionaires and any other organization either permanently or temporarily working at SSC. Notification and/or approval must be received for all activities that affect, or potentially affect the land, water, groundwater or air resources, produce either hazardous or non-hazardous waste, utilize SSC's drinking water or sewage collection/treatment system, or use hazardous materials or hydrocarbon-based products.

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P.3 AUTHORITY

Referenced documents are assumed to be the latest revision unless otherwise specified.

- a. NPR 8553.1, *NASA Environmental Management System*
- b. NPR 8570.1, *NASA Energy Management Program*
- c. NPR 8580.1, *NASA National Environmental Policy Act (NEPA) Management Requirements*
- d. Executive Order 12114, *Environmental effects abroad of major Federal actions*
- e. Executive Order 12580, *Superfund Implementation*
- f. Executive Order 13148, *Greening the Government Through Leadership in Environmental Management Office of Management Systems*
- g. Executive Order 13287, *Preserve America*
- h. Executive Order 13423, *Strengthening Federal Environmental, Energy and Transportation Management*
- i. Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*
- j. NPR 8530.1A, *Affirmative Procurement Program and Plan for Environmentally Preferable Products*
- k. NPR 8850.1, *Environmental Investigation and Remediation - Potentially Responsible Party Identification and Analysis*

P.4 APPLICABLE DOCUMENTS

- a. SCWI-8500-0003-ENV, *Sustainable Acquisitions Plan*
- b. SCWI-8500-0004-ENV, *Hazardous Material, Hazardous Waste, and Solid Waste Management Plan*
- c. SCWI-8500-0020-ENV, *Environmental Integrated Contingency Plan*

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- d. SCWI-8500-0017-ENV, *Pollution Prevention Plan*
- e. SCWI-8500-0018-ENV, *Lead Hazard Control Program Plan*
- f. SCWI-8500-0019-ENV, *Asbestos Hazard Control Plan*
- g. SCWI-8500-0026-ENV, *John C. Stennis Space Center Environmental Resources Document*
- h. SPLN-8500-0090, *Integrated Cultural Resources Management Plan*
- i. SPR 8500.1, *Environmental Management System Procedures and Guidelines*
- j. SWI-8500-0032-EMS, *Regulatory Inspections, Notifications, and Internal Compliance Audits*
- k. SWI-8830-0002, *Landfill Operations Plan*

Note: A complete listing of all applicable Federal and state regulations is provided in Appendix C for reference purposes.

P.5 MEASUREMENT/VERIFICATION

NASA Environmental shall verify compliance with these requirements through scheduled audits, observations and/or self assessments per SWI-8500-0032-EMS section 5.3.

P.6 CANCELLATION

SPR 8500.2 Rev. B dated November 3, 2008



Richard J. Gilbrech, Ph.D
Center Director

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CHAPTER 1. RESPONSIBILITIES

1.1 Center Director

- a. The Center Director is responsible for environmental compliance, including signing of all permit applications for the various environmental media and all other compliance documents that function to commit the Government to meet a specific set of conditions relative to environmental compliance.
- b. Where applicable with state and Federal regulations, the Center Director can designate a duly authorized representative for signature authority on all compliance requirements and notifications.

1.2 Director, Center Operations Directorate

The Director, Center Operations Directorate, is responsible for administration of environmental compliance activities. This includes signature authority as the duly authorized representative for reports and transmittal letters for various environmental reports.

1.3 Environmental Officer

The Environmental Officer (EO) is responsible for the following:

- a. Overseeing environmental compliance activities and interfacing with environmental regulatory representatives regarding environmental issues at SSC. This includes signature authority for hazardous waste manifests, other activities at SSC that are within the scope of the Environmental Management System (EMS), environmental reports and transmittal letters submitted to regulatory agencies per regulation and/or permit requirements.
- b. Advising senior management and NASA Headquarters on issues of noncompliance and initiating and/or recommending corrective action as required. The EO has cease and desist authority over any activity at SSC not in compliance with environmental laws and regulations.
- c. Serves as Chair of the Environmental Working Group.

1.4 NASA/SSC Environmental Management

The NASA/SSC Environmental Management staff is responsible for the following:

- a. Providing the management and system integration of all environmental activities.

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- b. Maintaining an EMS that meets the requirements of NPR 8553.1. The EMS assures the proper handling and disposal of hazardous wastes and that compliance reports and other documentation are maintained and submitted to regulatory authorities as appropriate.
- c. Providing for the management and/or maintenance of the hazardous waste cleanup sites, natural resources such as timber, water and wetlands, and cultural resources such as the towns of Gainesville and Logtown, and the historic Apollo-era rocket engine test stands.
- d. Providing a system of environmental review of all activities at SSC in compliance with the NEPA. This is inclusive of the maintenance of the SSC Environmental Resources Document (ERD) and the management of project specific NEPA documentation preparation including the Preliminary Environmental Survey (PES), Record of Environmental Consideration (REC), Environmental Assessment (EA), and Environmental Impact Statement (EIS).
- e. Providing a system of compliance audits to assure environmental compliance of activities at all levels throughout SSC. This includes the audit of resident agencies, contractors, commercial customers, and concessionaires to safeguard SSC from any adverse impacts resulting from their activity.
- f. Providing management for the development of environmental permit applications for compliance with Federal, state and local regulations, as well as providing the negotiations necessary for the acquisition of these permits.
- g. Providing technical leadership to the Environmental Working Group that is comprised of representatives from NASA's directorates, other Federal agencies/resident agencies, universities and contractors. The EO serves as the chair of the Working Group.
- h. Providing external interfaces for SSC relative to environmental subject matter.
- i. Planning and justifying the necessary resources to assess, monitor, evaluate and control, through the appropriate channels, SSC's environmental quality on a continuing basis.

1.5 NASA Directorates, Resident Agencies, Contractors, Commercial Customers, and Concessionaires

The individual NASA Directorates, resident agencies, contractors, commercial customers, and concessionaires including those that are located temporarily at SSC, if deemed necessary based on operational processes shall:

- a. Designate an Environmental Coordinator to be a representative on the Environmental Working Group, if the organization uses hazardous materials or otherwise has the potential to affect the environment.

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- b. Continually improve environmental and energy performance through a series of Executive Orders (EOs) including EO 13423 and EO 13514, Memoranda of Understanding, and other guidance.
- c. Correct all deficiencies that are identified during an internal audit and provide written documentation of the corrective actions taken.
- d. Ensure that personnel are properly trained to engage in an environmentally regulated activity.
- e. Provide secondary containment for storage tanks for hydrocarbon products of all sizes. SSC is a bulk oil storage facility where transfer operations occur; therefore there are no size exemptions for secondary containment requirements.
- f. Submit an annual hazardous material inventory by close of business January 10 of each year to NASA. Safety Data Sheets (SDSs) should also be available for inspection for all products used at SSC.
- g. Provide NASA Environmental Management notifications of any new activity or changes to existing operations/activities by the submittal of a PES, in order that environmental considerations can be included in the early planning phase of new projects.
- h. To utilize NASA resources funding can be provided using the electronic Stennis Work Request System for all required environmental impacts associated with specific activities or projects, including the consultation for the disposition of hazardous waste, wetland impact mitigation and survey for cultural resources, if deemed necessary. If required, funding would also be necessary to modify NASA held permits and the development of REC, EA, and EIS prior to proceeding with a project.
- i. Meet their respective agency NEPA requirements and when applicable, NASA will serve as the cooperating agency when developing EAs or EISs.
- j. Provide for proper management of satellite accumulation areas per regulatory guidance. Obtain an Environmental Protection Agency (EPA) Hazardous Waste Identification (ID) Number and coordinate the disposal of waste with the FOSC Environmental Services Office using SSC's Waste Removal Form, SSC-696F. The owner of the EPA ID number must sign all manifests.
- k. Obtain a wetland impact authorization permit prior to conducting land preparation activities and submit a Timber Removal Request, Form SSC-739, to NASA Environmental Management for the removal of marketable timber, which is considered a government resource. Early coordination will minimize potential construction delays.

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1. Coordinate burn activities with NASA Environmental to assure no interference with remote sensing acquisition over SSC and the surrounding area. Stumps and other debris from land clearing operations should be ground or chipped at or near the construction site in an area covered by wetland permitting unless the EO approves an alternative.

m. Appoint an individual to be energy coordinator who is responsible for monitoring their respective area for effective energy utilization and for assuring implementation of energy conservation measures.

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CHAPTER 2. PROCEDURAL REQUIREMENTS

2.1 Environmental Impact Avoidance and Other Considerations

2.1.1 Applicable Laws and Regulations

Requirements of the National Environmental Policy Act (41 USCA § 4321 to 4370c); 40 CFR 1500-1517 shall be followed in the performance of environmental impact avoidance activities at SSC. The National Environmental Policy Act (NEPA), as amended under Section 102, requires that all Federal agencies consider the environmental effects of proposed actions. The Act under Section 103 specifies that Federal agencies adopt administrative regulations, policies, and procedures to ensure decisions are made in accordance with the purposes and provisions of NEPA.

2.1.2 Other Considerations

Climate Change and Greenhouse Gas (GHG) Emissions

GHGs are gases in the Earth's atmosphere that prevent heat from escaping into space, resulting in climate change as the Earth's surface temperature increases above past levels. GHGs result primarily from the combustion of fossil fuels. Executive Order (EO) 13514 requires Federal agencies to inventory and report direct and indirect emissions of GHGs, including those associated with fuel consumption and the purchase of electricity. In addition, facilities with stationary combustion sources must determine applicability of the Environmental Protection Agency's (EPA's) Greenhouse Gas Reporting Program, as promulgated in 40 CFR Part 98, which requires reporting from facilities that meet certain criteria. Applicability is based on annual fuel consumption and is evaluated by SSC annually.

Ongoing efforts to reduce GHG emissions resulting from Center activities include implementation of energy-efficient infrastructure; use of innovative approaches and renewable energy; and identification of new strategies to minimize GHG emissions across operations. In addition to mitigating GHG emissions, the effects of climate change (e.g., increased temperature, changes in timing and volume of precipitation, ecological effects, and sea-level rise) must also be considered. For example, drainage culverts may need to be resized to accommodate more intense rainfall events.

Encroachment

The term "encroachment" encompasses a broader range of risks than the conventional concept relating to real estate competition such as development to a fence line. More broadly applied, this includes the identification and evaluation of current and future risks associated with development on the Center as it relates to the Center's ability to meet mission requirements for NASA.

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Numerous issues that could affect SSC's ability to carry out mission responsibilities have been identified and are discussed in detail in SCWI-8500-0026-ENV.

2.1.3 Specific Requirements

- a. NASA, resident agencies, contractors, commercial customers, and concessionaires shall submit a PES, Form SSC-696M prior to beginning any program or project related to construction or changes to operation processes. This process allows NASA Environmental Management Staff to review proposed site activities and make recommendations to ensure adequate protection of the environment.
- b. If an EA or EIS development is required, the implementing agency or commercial contract shall be responsible for funding and implementation.
- c. NASA shall have to concur on a "Finding of No Significant Impact or the Record of Decision" for all projects located at Stennis.
- d. NASA, resident agencies, contractors, commercial customers and concessionaires shall perform the specific actions outlined in the following table.

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Table 1 - Required Actions under the National Environmental Policy Act

§	Action/Requirement	Responsible Party	Reporting Method	Frequency
2.1.3	Preliminary Environmental Survey must be furnished during the planning of construction activities or changes to operation processes	NASA, Resident Agencies, Contractors, Commercial Customers and Concessionaires	PES to NASA Environmental Management	New projects by 30% design review
2.1.3	Record of Environmental Consideration - May call for further action	NASA	Letter from EO to PES originator	As required
2.1.3	Environmental Assessment - Assesses the consequences of actions and their impact on the environment	NASA & Resident Agencies	Publication and Public Comment	As required
2.1.3	Environmental Impact Statement - Describes the environmental impacts and what mitigation actions will be required	NASA & Resident Agencies	Publication and Public Comment	As required

2.2 Air Pollution Control

2.2.1 Applicable Laws and Regulations

Requirements of the Clean Air Act (42 USCA § 7401 to 7671q); 40 CFR 50-98; and Mississippi Department of Environmental Quality (MDEQ) Air Emission Regulations APC-S-1 through APC-S-10 shall be followed in the performance of air pollution control activities at SSC.

2.2.2 General Requirements

- a. The U.S. EPA has authorized the MDEQ as the air pollution permitting authority and compliance agency for the State of Mississippi.

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b. Air permitting activities for SSC shall be performed in accordance with SCWI-8500-0026-ENV.

c. NASA and NASA contractors shall coordinate any activities that will emit or have the potential to emit air pollutants with NASA Environmental Management to ensure the activity complies with the Clean Air Act (CAA) and Title V Operating Permit Numbers 1000-00005 and 1000-00054.

d. All other agencies, commercial customers and concessionaires shall obtain air permits for their own operations.

2.2.3 Specific Requirements

NASA and NASA contractors shall perform the specific actions outlined in the following table.

Table 2 - Required Actions under the Clean Air Act

§	Action/Requirement	Responsible Party	Reporting Method	Frequency
2.2.3	Report any non-permitted air emission points	NASA and NASA Contractors	Memo or letter to NASA Environmental Management	Immediately
2.2.3	Notification of plans to operate equipment that has an air pollution emission	NASA and NASA Contractors	PES to NASA Environmental Management	As soon as requirements are identified
2.2.3	Application to modify or renew the Title V Operations Permit or acquire a new permit	NASA and FOSC Environmental	Application to MDEQ	At least every 5 years
2.2.3	Monitoring and Measurement of Air Emissions	NASA and NASA Contractors	According to SCWI-8500-0001-EMS	Variable

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2.3 Potable Water

2.3.1 Applicable Laws and Regulations

Requirements of the Safe Drinking Water Act (42 USCA § 300f to 300j-26); 40 CFR 141-143; Title 49, Chapter 17 Mississippi Safe Drinking Water Law shall be followed in the performance of potable water activities at SSC.

2.3.2 Safe Drinking Water Requirements

- a. SSC currently operates two water systems to support the various operations that are located at the Center. The distribution of potable water at SSC is implemented in accordance with the MSDH permit numbers MS 230015 (community water system) and MS 230052 (non-transient, non-community water system). Therefore, we must adhere to the Safe Drinking Water Act (SDWA) requirements.
- b. The EO shall ensure that the potable water complies with the SDWA as prescribed by the Mississippi Department of Health (MSDH).
- c. Six large capacity deep wells and associated pumps, chlorinators, four elevated storage tanks, automatic controls, and a distribution system supply SSC's administrative support area, test area, and Area 9 with potable water. The wells are operated under groundwater withdrawal permits issued by the State of Mississippi. The permit numbers are 01910, 01912, 16593, 16620, 02614, and 02615. Details of the wells and permits are described in the ERD.
- d. Test records for the quality of potable water shall be maintained by NASA Environmental Management.
- e. Annually, a Consumer Confidence Report (CCR) shall be published to inform water supply users of the quality of the water.
- f. NASA, resident agencies, contractors, commercial customers and concessionaires shall coordinate any activities that utilize or plan to utilize water with NASA Environmental Management.
- g. The location of any operation within 500 feet of any wellhead shall be evaluated to safeguard these areas from potential contaminants in accordance with 40 CFR 141-143.
- h. NASA, resident agencies, contractors, commercial customers and concessionaires shall perform the specific actions outlined in Table 3.

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Table 3 - Required Actions under the Safe Drinking Water Act

§	Action/Requirement	Responsible Party	Reporting Method	Frequency
2.3.2	Notification of any activity that creates or changes demand on the SSC water supply or that will be located within 500 feet of wellheads.	NASA, Resident Agencies, Contractors, Commercial Customers and Concessionaires	PES to NASA Environmental Management	As required
2.3.2	Notification of Tie-ins to the existing potable water system	NASA & FOSC Engineering, Environmental & Plumbers, Resident Agencies /Contractors	Format provided by MSDH	As required
2.3.2	Application for permit to withdraw waters of the State for beneficial use	NASA & FOSC Environmental	Form provided by MSDH	Prior to water use
2.3.2	Public Health Water Supply Survey	NASA & FOSC Environmental	Form provided by MSDH	Annual
2.3.2	Notification of Public Water Supply Responsible Officials & Operators	NASA & FOSC Environmental and FOSC Plumbers	Form provided by MSDH	Annual
2.3.2	State Water Usage Report	NASA & FOSC Environmental	Form provided by MSDH	Annual
2.3.2	Drinking Water, Microbiological Analysis	NASA & Laboratory Service Contractor(LSC)/Lab	Form provided by MSDH	Monthly
2.3.2	Industrial Water System Usage Report	NASA & FOSC Environmental	Form provided by MDEQ	Annual

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2.4 Water Pollution Control

2.4.1 Applicable Laws and Regulations

Requirements of the Coastal Zone Management Act (16 USCA § 1451 to 1464); Clean Water Act (33 USCA § 1251 to 1387); 33 CFR 322; 33 CFR 323; 33 CFR 330; 40 CFR 104-149; Executive Orders 11988, 11990, and 12088 shall be followed in the performance of water pollution control activities at SSC.

2.4.2 Wastewater

a. Section 313(a) of the Clean Water Act requires permits for Federal facilities to comply with all Federal, state, interstate and local pollution control requirements. Wastewater discharges are permitted under the National Pollution Discharge Elimination System (NPDES) Permit numbers MS0021610 and MS0040797.

b. NASA Environmental Management shall maintain compliance with these permits. Permit modification may be required for any new activity or process, which would create a new point source of wastewater, increase the volume of an existing discharge, or alter the composition of an existing discharge.

c. SSC organizations whose activities involve the generation or disposal of industrial wastewater shall at all times properly operate and maintain all facilities and systems of collection, treatment, and control, which are used to achieve compliance with the existing NPDES permits.

2.4.3 Storm Water

a. Construction projects involving land clearing have the potential to result in storm water erosion of surface soils. All projects shall implement best management practices to minimize erosion that could affect the quality of storm water discharge from the site. Because this kind of storm water erosion can have adverse impacts on surface water bodies, physical barriers (silt fences, hay bales, etc.) are generally required during construction.

b. A PES shall be submitted to NASA Environmental Management for all land clearing projects.

c. NASA Environmental Management when deemed necessary shall provide a REC that will require the resident agency, commercial customers or concessionaires to apply for a construction storm water permit from MDEQ.

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- d. For NASA and NASA contractor projects, in most cases, the contractor shall be responsible for submitting the Notice of Intent, Storm Water Pollution Prevention Plan (SWPPP), and/or application for discharge permit, depending on the size of the project.
- e. Sites that are accepted for coverage under the General Permit shall be inspected weekly.
- f. The completed inspection forms shall be kept with the SWPPP until the project is completed and the complete package is submitted to MDEQ requesting closure of the permit.

2.4.4 Wetlands

- a. The U.S. Army Corps of Engineers (COE) considers a large portion of both the Fee Area and the Buffer Zone jurisdictional wetlands due to the presence of hydric soils and hydrophytic vegetation. A map showing the potential SSC wetlands areas is provided in the ERD. A permit is usually required for any work disturbing a wetland or waterway.
- b. A PES shall be submitted to NASA Environmental Management prior to beginning land or vegetation clearing, especially for projects that may involve dredging, filling, or tree removal.
- c. A U.S. Geological Survey (USGS) quadrangle map shall be submitted with the PES, clearly indicating the locations of proposed development.
- d. If any such proposed project impacts an area officially designated as a wetland, NASA Environmental Management shall submit a wetland permit application to the COE.
- e. An analysis of alternatives and public notice of proposed actions shall be completed prior to approval for projects with floodplain or wetlands impact.
- f. Mitigation will usually be required for all wetland impacts and these costs shall be estimated and included in the project's design cost.

2.4.5 Specific Requirements

NASA, resident agencies, contractors, commercial customers and concessionaires shall perform the specific actions outlined in Table 4.

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Table 4 - Required Actions under the Clean Water Act

§	Action/Requirement	Responsible Party	Reporting Method	Frequency
2.4.2	Notification to and approval from NASA Environmental Management prior to initiating any discharge from operations	NASA, Resident Agencies, Contractors, Commercial Customers and Concessionaires	PES to NASA Environmental Management	As required
2.4.2	Application for a new Discharge Point	NASA, Resident Agencies, Contractors, Commercial Customers and Concessionaires	PES to NASA Environmental Management	As required
2.4.2	Application to modify NPDES permit due to a new activity or process which would increase the volume or alter the composition of an existing discharge	NASA FOSC Environmental	Permit Modification Application to MDEQ	As required
2.4.2	National Pollutant Discharge Elimination System Report	NASA Environmental & LSC/Lab	Form provided by MDEQ	Monthly
2.4.2	Inspection Reports	NASA & FOSE Environmental LSC/Lab	Form provided by MDEQ	Annual
2.4.3	Notification of proposed construction or other land clearing General Construction Storm Water Permit	NASA, Resident Agencies, Contractors, Commercial Customers and Concessionaires NASA, Resident Agencies, Contractors, Commercial Customers and Concessionaires	PES to NASA Environmental Management Application to MDEQ	Prior to any land clearing Prior to any land clearing

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§	Action/Requirement	Responsible Party	Reporting Method	Frequency
2.4.4	Wetland Determination	NASA & LSC/Lab	Written Report by Wetland Specialist	Prior to any land clearing
2.4.4	Notification of activities involving dredging, filling, or otherwise disturbing wetlands	NASA, Resident Agencies, Contractors, Commercial Customers and Concessionaires	PES to NASA Environmental Management	Prior to wetland activity
2.4.4	Application to Corps of Engineers (COE) for wetland permit/authorization	NASA Environmental & LSC/Lab	Form provided by COE	Prior to wetland activity
2.4.4	Request to remove timber	NASA, Resident Agencies, Contractors, Commercial Customers and Concessionaires	Form SSC-739 to NASA Environmental Management	Prior to timber removal

2.5 Solid and Hazardous Waste Management

2.5.1 Applicable Laws and Regulations

Requirements of the Resource Conservation and Recovery Act (RCRA)(42 USCA § 6901 to 6992k); 40 CFR 241, 255-273, and Mississippi Non-Hazardous Waste Management Regulations shall be followed in the performance of solid and hazardous waste management activities at SSC.

2.5.2 Solid Waste

a. The Resource Conservation and Recovery Act (RCRA) was enacted to regulate all aspects of solid and hazardous waste management from generation to ultimate disposal. SSC operates and manages the onsite landfill in accordance with SWI-8830-0002. SSC shall minimize the volume of solid waste being placed in the onsite landfill in accordance with SCWI-8500-0017-ENV.

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The MDEQ administers non-hazardous and hazardous waste programs, as well as the waste reduction/waste minimization program.

b. SSC generates solid waste consisting of household-type wastes and non-hazardous industrial waste, which are disposed of onsite in the Class A sanitary landfill, permit number SW02401B0376. SSC shall maintain permits for the Class A Sanitary Landfill, Class II vegetative rubbish disposal sites (two active and one inactive wastewater treatment lagoons) and a General Permit Class II rubbish site (located adjacent to the landfill) for disposal of asphalt, stone, brick, mortar, concrete, and natural vegetative materials.

2.5.3 Hazardous Waste

a. SSC generates hazardous waste from its research and development operations, laboratories, instrument repair, and operations and maintenance functions. SSC is classified as a large quantity generator and operates under the EPA ID number MS 2800090001. Eight resident agencies are classified as small quantity generators or conditionally exempt and operate under their own EPA ID numbers.

b. The management of solid and hazardous waste at SSC shall be conducted in accordance with SCWI-8500-0004-ENV.

c. Resident agencies, contractors, commercial customers, and concessionaires that generate hazardous waste shall ensure that their activities are conducted in a manner that prevents the uncontrolled release of these wastes or materials into the environment.

d. Temporary storage of hazardous wastes shall be permitted near their point of generation in "satellite accumulation areas" only under the following conditions:

1. The containers shall be properly labeled.
2. An individual who is properly trained shall be designated for managing the storage area.
3. No more than 55 gallons of waste shall be stored in any single satellite accumulation area.
4. The container(s) shall be kept on a spill control pallet and grounded if the waste is flammable.
5. The container(s) shall be compatible with the waste, in good condition, and kept closed except when adding or removing wastes.
6. The Waste Removal Form (SSC-696F) shall be utilized when wastes require disposition.

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e. NASA Environmental Management shall provide technical consultation services to NASA, resident agencies, contractors, commercial customers and concessionaires to aid in the characterization of hazardous wastes, development of waste stream profiles and to ensure that hazardous wastes are properly handled and stored.

f. NASA shall maintain a 90-day hazardous waste accumulation area for wastes generated by NASA and its contractors.

g. A current 90-Day Hazardous Waste Accumulation Point Log, Form SSC-696N, which lists wastes generated by NASA and NASA contractors, shall be maintained in this area.

h. This area shall be inspected weekly using the 90-Day Hazardous Waste Accumulation Point Inspection Sheet, Form SSC- 696J, to ensure that the area, containers and required documents are in compliance.

i. Additionally, hazardous waste collection services shall be provided for NASA and its contractors.

j. Offsite disposal of hazardous waste shall be periodically coordinated through NASA Environmental Management, utilizing pre-approved treatment, storage, and disposal facilities.

k. Resident agencies, contractors, and commercial customers may make arrangements to include their hazardous wastes on these periodic shipments. However, they shall have a valid EPA ID number and store their hazardous wastes in their own designated areas until shipment arrangements are complete.

2.5.4 Specific Requirements

NASA, resident agencies, contractors, commercial customers and concessionaires shall perform the specific actions outlined in the following table.

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Table 5 - Required Actions under the Resource Conservation and Recovery Act

§	Action/Requirement	Responsible Party	Reporting Method	Frequency
2.5.2	Applications for landfill/rubbish site permit renewals, modifications, or waivers	NASA & FOSC Environmental	Form provided by MDEQ or other correspondence	As required
2.5.3	Notification prior to initiating any activity or process which will result in a new hazardous waste stream	NASA, Resident Agencies, Contractors, Commercial Customers, and Concessionaires	PES to NASA Environmental Management	As required
2.5.3	Waste Stream Profile Annual Review	NASA & FOSC Environmental	SSC Format	Annually
2.5.3	Set up new hazardous waste satellite accumulation storage area and train the responsible personnel	FOSC or Environmental Services Office	Documentation of training	As required
2.5.3	Update employee training for hazardous material and hazardous waste handlers	NASA, Resident Agencies, Contractors, Commercial Customers	Filed at handlers' organization/ TCRS	Annually
2.5.3	90 Day Hazardous Waste Accumulation Point Waste Log Sheet	FOSC Environmental Services Office	Form SSC- 696N	Keep updated at all times
2.5.3	90 Day Hazardous Waste Accumulation Point Inspection Sheet	FOSC Environmental Services Office	Form SSC- 696J	Weekly

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§	Action/Requirement	Responsible Party	Reporting Method	Frequency
2.5.3	Department of Transportation (DOT) Training	NASA & FOSC Environmental	Training documentation in Training Certification Record System TCRS	Every 3 years
2.5.3	Resource Conservation & Recovery Act (RCRA) Training	NASA, FOSC Environmental, & Resident Agencies as deemed necessary	Training documentation in TCRS	Annually
2.5.3	Annual Hazardous Waste Activities Report	NASA, Resident Agencies, Contractors, Commercial Customers and Concessionaires	Form provided by MDEQ	Annually
2.5.3	Request for collection and disposal of hazardous material and/or hazardous waste	NASA, Resident Agencies, Contractors, Commercial Customers, and Concessionaires	Form SSC- 696F	As required
2.5.3	Offsite treatment, storage, and disposal facility audits	FOSC Environmental Services	Written report	Annually
2.5.3	Update Hazardous Material, Hazardous Waste, and Solid Waste Management Plan	NASA & FOSC Environmental	Written Report Tech Doc	As required

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2.6 CERCLA Clean Up Sites

2.6.1 Applicable Laws and Regulations

Requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)(42 USCA § 9601 to 9675); 40 CFR 300-374; and Executive Order 12580 shall be followed in the performance of environmental response and cleanup activities at SSC.

2.6.2 Release Reporting

a. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended by the Superfund Amendments and Re-authorization Act (SARA) includes lists of hazardous substances and threshold quantities at 40 CFR 302 and 40 CFR 355. Under CERCLA, NASA, the resident agencies, and the contractors at SSC shall report releases of reportable quantities (RQ) of hazardous substances to the National Response Center (NRC) within 24 hours.

b. SSC notification procedures for spills or releases shall be performed in accordance with SCWI-8500-0020-ENV. Submit SSC Spill/Release Report, Form SSC-696D, within 3 working days of spill or release discovery.

c. In all cases the person(s) discovering the release shall contact the SSC Dispatcher at extension 911 or if using a cell phone dial (228) 688-3636.

d. The SSC Incident Commander (SSC Fire Chief) shall determine the appropriate classification and response actions and notify NASA Environmental Management.

e. All official notifications to regulatory agencies, including the NRC, shall be made by the SSC EO or designee.

2.6.3 Investigation and Remediation Activities

a. SSC has completed the investigation of potential historical spills, releases, and disposal incidents under a voluntary cleanup program through MDEQ using the CERCLA criteria. Section 120 of CERCLA as amended by SARA mandated that EPA establish a "docket," or listing, of Federal facilities where hazardous waste has been generated and/or stored, treated or disposed of in the past. Although SSC has not been listed as a CERCLA facility, NASA has taken and shall continue to take a proactive approach to investigate areas that may have been impacted by historical releases.

b. Under the CERCLA site investigation process, the first step involves conducting a Preliminary Assessment (PA) to determine whether or not further investigation is warranted.

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Forty sites were reviewed in the PA. Twenty-six of these sites were found to be clean or to have localized contamination. In the latter case, NASA conducted cleanup activities and disposed of contaminated materials at approved facilities. Clean up activities included the closure of numerous rock/reed treatment systems and neutralization pits. Above-ground storage tanks were also replaced with state-of-the-art systems.

c. Of the 40 originally identified, 31 are No Further Action (NFA) sites, one is a long-term monitoring site, one is a potential cleanup site, and seven are cleanup sites. The seven cleanup sites, which are referred to as Clean Up Areas A-G, are either in active remediation or post remediation/monitored natural attenuation (MNA). Areas A and F are in post-remediation. Area H has been identified as a potential cleanup site. Area I was accepted as a no further action (NFA) site by the MDEQ in May 2007. A PCB release near B3202 was investigated in 2011 with the removal of the highly contaminated soils and disposal in March 2013. Since residual contamination is left in place, NASA will implement land use controls and restrict the land use by:

- Covering the soil where the residual contamination exists with concrete;
- Posting a sign on B3202 to provide instructions prior to digging in the area;
- Revising the Master Plan to indicate the presence of residual contamination;
- Restricting the use of the land;
- Revising the master drawings of the building to include a note and outline of the affected area;

The groundwater was treated to remediate low levels of volatile organic compounds detected in groundwater 'hotspot' areas. Baseline groundwater data will be collected on a quarterly basis for a two year period (2013-2015), after which the site will be evaluated for MNA.

d. An extensive review of SSC's remediation program shall be conducted every five years by NASA and state regulatory entities. Two- 5 year reviews have been conducted in November 2007 and November 2012. As a result of these reviews, NASA proposed changes to the Long-Term Operational and Monitoring Plan (LTOMP) at the remediation sites. A revised LTOMP was submitted to MDEQ which incorporated changes from the November 2012 review.

2.6.4 Specific Requirements

NASA, resident agencies, contractors, commercial customers and concessionaires shall perform the specific actions outlined in Table 6.

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Table 6 - Required Actions under CERCLA and SARA

§	Action/Requirement	Responsible Party	Reporting Method	Frequency
2.6.2	Notification immediately upon discovery of a release of a potentially hazardous substance	NASA, Resident Agencies, Contractors, Commercial Customers	Call 911 or if using a cell phone dial (228) 688-3636, followed by submittal of an Incident Report Form SSC-696D	As required
2.6.3	Notify NASA Environmental Management within 24 hours of discovery of a contaminated site	NASA, Resident Agencies, Contractors, Commercial Customers	Verbal followed by written to NASA Environmental Management	As required

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2.7 Spill Prevention and Response

2.7.1 Applicable Laws and Regulations

Requirements of the Oil Pollution Act (33 USCA § 2701 to 2761); Federal Water Pollution Control Act (33 USCA § 1251 to 1387); and 40 CFR 110-114 shall be followed in the performance of spill prevention and response activities at SSC.

2.7.2 Spill Prevention, Control, and Countermeasures

- a. NASA/SSC is classified as an on-shore facility, as defined in 40 CFR 112. SSC maintains a *Spill Prevention Control and Countermeasure Plan* (SPCC Plan) because bulk storage facilities and minor transfer operations could, in the event of an accident, be reasonably expected to discharge oil in harmful quantities into or upon the navigable waters of the United States or adjoining shorelines. The SPCC Plan is included in the SCWI-8500-0020-ENV. The SPCC Plan provides information on all bulk storage facilities (aboveground and underground) and transfer facilities for petroleum products, and the various controls that are in place to prevent and/or control releases.
- b. SSC organizations shall provide secondary containment (double walled systems) for all aboveground bulk storage tanks that are used to store petroleum products or other liquids that would be considered pollutants in the event of an accidental release.
- c. Due to the large quantities of petroleum products at SSC, there shall be no minimum quantity exemptions for aboveground storage tanks where spills of petroleum products may reasonably be expected to reach navigable waters.

2.7.3 Environmental Integrated Contingency Plan (EICP)

- a. SCWI-8500-0020-ENV, is intended to delineate responsibilities, identify facilities, and establish procedures relevant to preparing for and responding to releases of oil and/or hazardous materials. This includes hazardous material incidents involving fire or explosion, or the imminent threat thereof.
- b. The procedures in the EICP shall apply to all agencies, organizations, contractors, and their employees performing work at SSC.
- c. Each organization shall be responsible for training employees regarding their responsibilities in the case of a release or spill. At a minimum, each employee should be aware of the hazards associated with materials that they work with, and they should know the notification procedures to follow in the event of a spill or other incident.

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d. The EICP was prepared in accordance with the *National Response Team's Integrated Contingency Plan Guidance* (Federal Register, Pages 28642 - 28664, Volume 61, Number 109, June 5, 1996). It is organized into three main sections: an introductory section, a core plan, and a series of supporting annexes. The core plan includes essential response procedures and outlines a hierarchy of incident response levels. The annexes include more detailed supporting information.

e. NASA Environmental Management shall provide for and coordinate all planning and reporting requirements and for conducting spill/discharge containment, cleanup, and disposal activities.

f. The FOSC Environmental Office shall provide for the planning, equipment, and coordination activities associated with the EICP and for the appointment of an SSC Incident Commander, who is responsible for response activities.

2.7.4 Release Reporting

a. The Clean Water Act includes a list of hazardous substances and threshold quantities at 40 CFR 116-117. Any release of a listed hazardous substance in a quantity equal to or greater than the threshold quantity shall be immediately reported to the National Response Center (NRC).

b. The NRC shall also be notified in the event of a discharge of oil to navigable waters, which creates sheen, results in deposits of sludge beneath the surface or on the shoreline, or violates applicable water quality standards.

c. SSC notification procedures for spills or releases shall be conducted in accordance with the EICP.

d. In all cases the person(s) discovering the release shall contact the SSC Dispatcher at extension 911, or if using a cell phone (228) 688-3636.

e. The SSC Incident Commander (the Fire Chief) shall determine the appropriate classification and response actions and notify NASA Environmental Management.

f. All official notifications to regulatory agencies, including the NRC, shall be made by the SSC Environmental Officer or their designee.

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2.7.5 Specific Requirements

NASA, resident agencies, contractors, commercial customers and concessionaires shall perform the specific actions outlined in Table 7.

Table 7 - Required Actions under the Oil Pollution Act and the Clean Water Act

§	Action/Requirement	Responsible Party	Reporting Method	Frequency
2.7.2	Notify NASA Environmental Management prior to constructing or installing storage or transfer facilities for petroleum products	NASA, Resident Agencies, Contractors, Commercial Customers, and Concessionaires	PES to NASA Environmental Management	As required
2.7.2	MS Department of Environmental Quality Underground Storage Tank Status Report	NASA & FOSC Environmental	Form provided by MDEQ	Annual
2.7.3	Update the Environmental Integrated Contingency Plan (EICP)	NASA & FOSC Environmental	As per National Response Team (NRT) Guidance Document & 40 CFR 112	As required
2.7.4	Notification immediately upon discovery of a release of a potentially hazardous substance	NASA, Resident Agencies, Contractors, Commercial Customers, and Concessionaires	Call 911 or if from cell phone (228) 688-3636 & submit Incident Report : Form SSC-696D	As required

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2.8 Toxic Substances Control

2.8.1 Applicable Laws and Regulations

Requirement of the Toxic Substances Control Act (15 USCA § 2601 to 2671); Occupational Safety and Health Act (29 USCA § 651 et seq.); 40 CFR 700-799; and 29 CFR 1910.1001 shall be followed in the performance of toxic substances control activities at SSC.

2.8.2 Toxic Substances Control

The Toxic Substances Control Act (TSCA) was enacted to protect human health and the environment by regulating chemicals used in commerce and newly developed chemicals. Under TSCA, EPA places controls on chemical manufacture, distribution, use, and disposal. Included in TSCA are a variety of requirements to control the manufacture, distribution in commerce, use, and disposal of specific chemical substances or mixtures. At SSC, TSCA's primary applicability relates to the decontamination and disposal of PCB-contaminated electrical equipment, and the removal and disposal of materials that contain asbestos or lead.

2.8.3 Polychlorinated Biphenyl (PCB) Management

- a. The existing inventory of PCB contaminated transformers is gradually being reduced through replacement. Some transformers were retrofilled with non-PCB electrical insulating oil but over time most of these transformers have had to be reclassified as PCB or PCB-contaminated in compliance with 40 CFR 761.
- b. In addition to transformers, many of the facility's older fluorescent lighting fixtures contain ballasts that contain PCB's. When these ballasts are removed from service, they shall be replaced with non-PCB ballasts.
- c. PCB-containing ballasts, PCB transformers, and PCB-contaminated transformers that are permanently taken out of service shall be collected by the FOS Contractor for disposal in accordance with procedures in SCWI-8500-0004-ENV.

2.8.4 Asbestos Management

- a. Asbestos Containing Material (ACM) was used in the past at SSC for fire protection and thermal insulation. The *SSC Asbestos Hazard Control Plan*, SCWI-8500-0019-ENV, shall serve as the operations and maintenance plan for managing asbestos in place by monitoring and maintaining its condition, ensuring proper cleanup of fibers previously released, and preventing further release.

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- b. Ongoing, routine monitoring shall be conducted in Buildings 1000, 1100, 1200, 2101 and 2201. Monitoring results have shown that the measured concentration of asbestos in these buildings is less than the 0.01 fibers per cubic centimeter (cc).
- c. Other buildings at SSC shall be monitored for air quality on a project-specific basis. The current OSHA standard for asbestos workers is 0.10 fibers/cc.
- d. All activities which could potentially disturb ACM shall be controlled. Submit Asbestos Maintenance Work Approval, Form SSC-740, to obtain permission to conduct work in areas that might contain ACM.
- e. Operations and maintenance work practices shall be established, including worker health and safety training, and protection, record keeping of all documents related to asbestos management, and approval procedures for operations and maintenance activities in areas where ACM may be disturbed.
- f. When renovation, demolition, or deterioration requires the removal of asbestos-containing material or thermal system insulation, a licensed asbestos abatement contractor shall perform the work in accordance with state and Federal regulations.
- g. All removed asbestos shall be disposed of in the onsite non-hazardous solid waste landfill as approved by the MDEQ. MDEQ requires a 10-day advance notification of all building demolition (even if they do not contain asbestos) and all renovations of areas that contain asbestos.

2.8.5 Specific Requirements

NASA, resident agencies, contractors, commercial customers and concessionaires shall perform the specific actions outlined in Table 8.

Table 8 - Required Actions under the Toxic Substances Control Act

§	Action/Requirement	Responsible Party	Reporting Method	Frequency
2.8.3	PCB Management Report	NASA & FOSC Environmental	Update Inventory of PCB transformers	Annually

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§	Action/Requirement	Responsible Party	Reporting Method	Frequency
2.8.3	Notification of PCB Activity	NASA Environmental Management	EPA Form # 7710-53	As required
2.8.3	Notification immediately upon discovery of a release oil from an electrical transformer	NASA, Resident Agencies, Contractors, Commercial Customers, and Concessionaires	Call 911 or if from cell phone (228) 688-3636 and submit Incident Report Form SSC- 696D	As required
2.8.4	Attend annual awareness briefing for asbestos	Contractors, Commercial Customers	Maintained in TCRS	Annually
2.8.4	Training and certification for asbestos-related work	NASA, Contractors, Commercial Customers	Each organization maintains master list of certified personnel	Annually
2.8.4	Surveillance and monitoring of Asbestos Containing Material (ACM)	FOSC Industrial Hygiene IH Office	Information posted on SSC homepage http://odyssey.ssc.nasa.gov/environmental/asbestos.htm	Annually
2.8.4	Request to conduct Asbestos O & M Activity	NASA Environmental FOSC-IH Office	Form SSC- 740	As required

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§	Action/Requirement	Responsible Party	Reporting Method	Frequency
2.8.4	Request to perform demolition on any building at SSC that contains asbestos	NASA Environmental Management, FOSC Engineering	Form generated by MDEQ	As required
2.8.4	Request to conduct renovations of buildings containing asbestos	NASA Environmental Management, FOSC Engineering	Form generated by MDEQ	As required
2.8.4	Update Asbestos Hazard Control Plan	NASA Environmental & FOSC IH Office	Plan	As Required

2.9 Emergency Planning and Community Right-to-Know

2.9.1 Applicable Laws and Regulations

Requirements of the Emergency Planning and Community Right-to-Know Act (42 USCA § 11001 to 11050); 40 CFR 350-372; Homeland Security Appropriations Act of 2007, and Public Law 109-295 (6 CFR 27) shall be followed in the performance of emergency planning and community information activities at SSC.

2.9.2 Emergency Action and Community Right-to-Know

a. The Emergency Planning and Community Right-to-Know Act (EPCRA), which is Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), establishes requirement of notification to state and local emergency planning organizations. SSC shall report the types and amounts of listed hazardous substances stored onsite, if the quantity stored is equal to or greater than the specified established threshold. SSC shall also immediately report releases of listed hazardous substances to the appropriate Federal agency.

b. NASA shall submit annually to the local and state emergency-planning agencies information about the potential chemical hazards that exist at SSC.

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2.9.3 Required Reporting

- a. NASA Environmental Staff shall submit a Tier II report annually for NASA and its contractors, and resident agencies shall submit a Tier II, if applicable to include the maximum quantities of listed chemicals stored on site during the reporting year, if the threshold quantities are exceeded.
- b. NASA, NASA contractors, resident agencies and commercial customers shall submit hazardous material inventories to NASA Environmental Management by January 10th of each year. The hazardous material inventory is maintained electronically in SSC's Hazardous Material Inventory System (HMIS).
- c. Additionally, NASA Environmental Management shall submit a Toxic Release Inventory (TRI) Report annually for NASA and its contractors if established facility, employee, and chemical thresholds set by Section 313 of the EPCRA are met and/or exceeded.
- d. The resident agencies shall report separately, if deemed necessary.
- e. Toxic chemical releases and reporting of the quantities of listed chemicals transferred offsite shall be reported by NASA for NASA. Its contractors and resident agencies shall report separately, if applicable the Toxic Release Inventory (TRI) report if the quantity exceeds the established threshold. This reporting is required to provide the public with information on the release of toxic substances to the environment in the reporting year.
- f. This report shall include both routine and accidental releases of listed chemicals if the quantity exceeds the established threshold.

2.9.4 Homeland Security

- a. Section 550 of the Homeland Security Appropriations Act of 2007, directed the Department of Homeland Security (DHS) to regulate security at high-risk chemical facilities. Under this mandate, on April 9, 2007, DHS issued the Chemical Facility Anti-Terrorism Standards (CFATS) interim final rule, 6 CFR Part 27.
- b. Based on the Top-Screen data report that was submitted in January 2008, SSC is not a high-risk chemical facility for the purposes of CFATS. Yet, if SSC comes into possession of a chemical of interest (COI) in a quantity at or above the Screening Threshold Quantity for that chemical, as listed in CFATS Appendix A, a new Top-Screen shall be submitted to DHS within sixty (60) calendar days of the date possession of the COI.

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2.9.5 Specific Requirements

NASA, resident agencies, contractors, commercial customers and concessionaires shall perform the specific actions outlined in Table 9.

Table 9 - Required Actions under the Emergency Planning and Community Right-to-Know Act

§	Action/Requirement	Responsible Party	Reporting Method	Frequency
2.9.2	Hazardous Material Inventory	NASA, Resident Agencies, Contractors, Commercial Customers, and Concessionaires	HMIS	Annually
2.9.3	SARA Tier II Report	NASA & FOSC Environmental, Resident Agencies, Contractors, Commercial customers, and Concessionaries	Electronic Format	Annually (if applicable)
2.9.3	Toxic Release Inventory Report	NASA & FOSC Environmental, Resident Agencies, Commercial Customers	Electronic Format	Annually (if applicable)
2.9.4	Chemical Facility Anti-Terrorism Standard	NASA & FOSC Environmental	Electronic Format	As required

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2.10 Pesticide/Herbicide Control

2.10.1 Applicable Laws and Regulations

Requirements of the Federal Insecticide, Fungicide, and Rodenticide Act (7 USCA § 136 to 136y); Mississippi Department of Agriculture and Commerce, Division of Plant Industry Regulations; and 40 CFR 152-186 shall be followed in the performance of pesticide and herbicide activities at SSC.

2.10.2 Pesticide/Herbicide Management

- a. The use, storage, delivery, and disposal of insecticides and herbicides are regulated by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). FIFRA outlines registration requirements for pesticide producers, certification requirements for pesticide applicators, and directs EPA to set regulations for the acceptance of certain pesticides and recommended procedures for the disposal and storage of pesticides and pesticide containers.
- b. SSC shall utilize an offsite contractor for most insecticide and herbicide treatment operations. Minimal quantities of insecticides and herbicides are stored onsite. The offsite contractor shall utilize the Integrated Pest Management (IPM) approach, which minimizes chemical application. The contractor shall dispose of any waste generated at an offsite facility in accordance with state and Federal regulations.
- c. Mixing and/or transfer of pesticides must only be performed by authorized pesticide handlers wearing the personal protective equipment required on the pesticide SDS. Pesticides shall only be transferred or mixed at an approved location, such as a concrete pad, with drains sealed during the mixing/transfer operation. The authorized pesticide handler must remain with the operation at all times, to ensure that pesticides are not allowed to overflow the containers.

2.10.3 Specific Requirements

NASA, resident agencies, contractors, commercial customers and concessionaires shall perform the specific actions outlined in Table 10.

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Table 10 - Required Actions under the Federal Insecticide, Fungicide, and Rodenticide Act

§	Action/Requirement	Responsible Party	Reporting Method	Frequency
2.10.2	Notification of any activity which would increase the quantity of pesticides applied or stored onsite	NASA, Resident Agencies, Contractors, Commercial Customers and Concessionaires	PES to NASA Environmental Management	As required
2.10.2	Pesticide Usage Report	FOSC Facilities	8-1/2 x 11 Formatted Report	Annually

2.11 Environmental Noise Control

2.11.1 Applicable Regulations

Requirements of the Noise Control Act (42 USCA § 4901 et seq.); and Occupational Safety and Health Act (29 USCA § 651 et seq.) shall be followed in the performance of noise control activities at SSC.

2.11.2 Noise and Vibration

- a. Due to the nature of static rocket engine testing, noise and to a lesser extent vibration have always been issues at SSC. NASA uses the land area that makes up the Buffer Zone, approximately 125,001 acres, in order to mitigate the impact of noise on local communities.
- b. The soils at SSC are generally composed of poorly to somewhat poorly drained silty and loamy soils. Wetness, high organic content and weathered clay mineralogy generally characterizes them. These soils tend to dampen the effects of vibration resulting from engine testing. In fact, years of testing the Saturn V rocket motor, which was considerably more powerful than the engines currently being tested, resulted in no significant adverse effects to buildings.

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2.11.3 Background Noise Levels

a. Generally, background noise levels at SSC are low. The effects of the generators, pumps and boilers are minimal because they are contained for the most part within structures. Traffic noise is highest during the morning and evening as employees travel to and from work. Noise measurements were recorded at SSC at four locations within the Fee Area in 1974 when no rocket tests were being conducted. The results of these measurements and their comparison with the Federal Highway Administration's design level have been summarized and are available upon request to the EO.

b. NASA, resident agencies, contractors, commercial customers and concessionaires shall notify NASA Environmental Management when their activities will generate noise levels above background levels.

2.11.4 Specific Requirements

NASA, resident agencies, contractors, commercial customers and concessionaires shall perform the specific actions outlined in Table 11.

Table 11 - Required Actions under the Noise Control Act

§	Action/Requirement	Responsible Party	Reporting Method	Frequency
2.11.3	Notification if activities will produce noises significantly above background levels.	NASA, Resident agencies, Contractors, Commercial Customers and Concessionaires	PES to NASA Environmental Management	As Required

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2.12 Radiation Control

2.12.1 Applicable Laws and Regulations

Requirements of the Atomic Energy Act (42 USCA § 2021h); and 10 CFR 20) shall be followed in the performance of radiation control activities at SSC.

2.12.2 Radiation Management

- a. The Atomic Energy Act establishes a program of Federal regulation of atomic energy and materials, including source, special nuclear and byproduct materials. The Act also includes protection of the public from radiation exposure. 10 CFR 20 establishes permissible dose levels and concentrations of radiation, precautionary procedures, and waste disposal procedures.
- b. NASA, resident agencies, contractors, commercial customers, and concessionaires shall maintain compliance with all regulations governing the procurement and use of radioactive materials and ionizing/non-ionizing radiation producing machines or devices.
- c. NASA Environmental Management shall be notified whenever a radiation source is added or removed from SSC.

2.12.3 Specific Requirements

NASA, resident agencies, contractors, commercial customers and concessionaires shall perform the specific actions outlined in Table 12.

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Table 12 - Required Actions under the Atomic Energy Act

§	Action/Requirement	Responsible Party	Reporting Method	Frequency
2.12.2	Maintenance of licenses for all radiation sources in each organization	NASA, Resident Agencies, Contractors, Commercial Customers and Concessionaires	File copies	As Required
2.12.2	Provide inventory of radiation sources to NASA Safety	NASA, Resident agencies, Contractors, Commercial Customers and Concessionaires	As deemed necessary by NASA	Annually
2.12.2	Maintain site inventory of radiation sources both ionizing and non-ionizing	NASA IH, FOSC Safety and Mission Assurance, and Area Radiation Safety Officers (ARSOs)	Reports	Update when a radiation source is added or removed, or at least annually

2.13 Historical and Archaeological Resources Management

2.13.1 Applicable Laws and Regulations

Requirements of the National Environmental Policy Act (42 USCA § 4371 et seq.); National Historic Preservation Act (16 USCA § 470 et seq.); Archaeological Resources Protection Act (16 USCA § 470aa to 470mm); Archaeological and Historic Preservation Act (16 USCA § 469 to 469c); American Antiquities Act of 1906 (16 USC 431-433); Native American Graves Protection and Repatriation Act (NAGPRA) 1990; 36 CFR 800; 40 CFR 6; Executive Order 11593; and Executive Order 13287 shall be followed in the performance of historical and archeological resources management activities at SSC.

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2.13.2 Historical Resources

- a. The purpose of the National Historic Preservation Act is to ensure that places of historic value are preserved and enhanced. Section 100(a)(2) was amended in 1992 to require Federal agencies establish a historic preservation program for the identification and protection of historic properties under their jurisdiction. In response, NASA Environmental Management implemented the SSC Historic Preservation Plan (HPP) in 1995 and revised in 2004. The SSC Integrated Cultural Resources Management Plan (ICRMP) replaced the HPP in 2010 and discusses specific short term and long term management actions required by Federal laws and regulations for the proper protection and stewardship of identified historic properties at SSC.
- b. All excavations and disturbances shall be approved by the NASA Historic Preservation Officer (HPO).
- c. A Section 106 cultural resources survey shall be completed prior to any surface or subsurface work.
- d. The Rocket Propulsion Test Complex is the only property at SSC that is designated as National Historic Landmarks and appears on the National Register of Historic Places. The Rocket Propulsion Test Complex includes the A-1 Rocket Propulsion Test Complex (Building 4120), the A-2 Rocket Propulsion Test Complex (Building 4122), and the B1/B2 Rocket Propulsion Test Complex (Building 4220/4221). These test stands and associated control centers have been designated because they were used for the testing of Saturn rockets that were utilized in landing men on the moon. The historic town sites of Gainesville and Logtown, Mississippi are not on the National Register of Historic Places, but a nomination has been submitted for Gainesville.
- e. No actions shall be initiated that would alter or modify the above listed historic properties without approval from NASA Environmental Management. This includes actions that may be considered routine maintenance, such as painting.

2.13.3 Archaeological Resources

- a. In early 2009 NASA obtained the services of the U. S. Army Corps of Engineers (COE) to conduct background and field investigations at SSC to update and revise the 2003 Historic Preservation Plan, which resulted in the current ICRMP. An archaeological site probability model test was done on three areas within the Fee Area and the Acoustical Buffer Zone (Bayou La Croix/26.3 hectares [65 acres], Napoleon/26.7 hectares [66 acres], and Landfill area/15.4 hectares [38 acres]). The high probability status of the areas is, in part based on previous research and is predicated on the presence of favorable environmental conditions and/or documentary evidence that indicates past human settlement. Environmental factors generally considered favorable for the presence of archaeological sites is inclusive of close proximity, within 200

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meters (0.125 miles) to a viable fresh water source; relatively high, well-drained land forms; and the presence of other sites or other significant cultural features nearby.

b. The SSC HPO shall coordinate all cultural/historical work for the Center, while developing a programmatic agreement (PA) with the Mississippi Historic Preservation Office. The PA encompasses a site-wide survey to determine areas of risk that require a thorough cultural survey. It will also classify areas that are vacant of any potential cultural resources to streamline the Section 106 process of the National Historic Preservation Act.

2.13.4 Specific Requirements

NASA, resident agencies, contractors, commercial customers and concessionaires shall perform the specific actions outlined in Table 13.

Table 13 - Required Actions Related to Historical and Archaeological Resources

§	Action/Requirement	Responsible Party	Reporting Method	Frequency
2.13.2	Notification upon discovery of artifacts or other historically or archaeologically significant objects	NASA, Resident Agencies, Contractors, Commercial Customers, Concessionaires	Verbal report to NASA Environmental Management or Historic Preservation Officer (HPO)	As required
2.13.2	Prior notification should be given for the surface and subsurface work. Notification prior to activities that may alter or modify the listed historic properties (test stands)	NASA, Resident Agencies, Contractors, Commercial Customers	PES to NASA Environmental Management, Dig Permit, Timber Removal	As required
2.13.2	Report to State Historic Preservation Officer	NASA Environmental FOSC Environmental	Description of activities affecting historic properties and photos (B & W)	Annually

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§	Action/Requirement	Responsible Party	Reporting Method	Frequency
2.13.2	Report to Congress on Historical and Archaeological Activities	NASA's HPO	Description of activities affecting historic properties	Annually
2.13.2	Consultation with State Historic Preservation Office prior to modification of historic properties	NASA Environmental & HPO	Letters	As required

2.14 Management of Fish, Wildlife, and Protected Species

2.14.1 Applicable Laws and Regulations

Requirements of the Endangered Species Act (16 USCA § 1531 to 1544); Fish and Wildlife Conservation Act (16 USCA § 2901 et seq.); Fish and Wildlife Coordination Act (16 USCA § 661 to 666c); National Environmental Policy Act (42 USCA § 4371 et seq.); 40 CFR 6; Guidance for Presidential Memorandum on Environmentally & Economically Beneficial Landscape Practices on Federal Landscaping Grounds (60 Fed. Reg. 40837, August 10, 1995); and Executive Order 13148 shall be followed in the performance of fish, wildlife, and protected species management activities at SSC.

2.14.2 Fish and Wildlife Conservation

- a. The Fish and Wildlife Conservation Act of 1980 provides assistance to the states for the development and implementation of conservation programs for non-game fish and wildlife. It also mandates that Federal agencies utilize their statutory and administrative authority to conserve and to promote conservation of non-game fish and wildlife and their habitats. The Department of Wildlife, Fisheries, and Parks implements conservation programs in the State of Mississippi.
- b. The Fish and Wildlife Coordination Act deals with the potential impacts of water resource development projects on wildlife. Specifically, the Act requires mitigation actions to protect wildlife resources whenever "the waters of any stream or other body of water are impounded, diverted, the channel deepened, or the stream or other body of water otherwise controlled or modified." Wildlife resources "include birds, fishes, mammals, and all other classes of wild animals and all types of aquatic and land vegetation upon which wildlife is dependent." The Fish

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and Wildlife Coordination Act is administered by the Department of Interior through the U.S. Fish and Wildlife Service (USFWS).

c. NEPA requires similar measures before any project to control or modify any natural body of water. NEPA specifically requires Federal agencies to consult with the USFWS and the appropriate state agency to determine the "measures necessary to mitigate, prevent and compensate for project-related losses of wildlife resources and to enhance the resources." The reports and recommendation of the wildlife agencies must be incorporated into the environmental assessment or the environmental impact statement.

2.14.3 Preservation of Threatened and Endangered Species

a. The Endangered Species Act of 1973 was enacted "to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved and provide a program for the conservation of such endangered and threatened species." The term "endangered species" applies to any species, which is in danger of extinction throughout all, or a significant portion of its range. A "threatened species" is any species, which is likely to become an endangered species within the foreseeable future throughout all, or a significant portion of its range. The Secretary of Interior makes determinations of threatened or endangered status in conjunction with the Secretary of Commerce.

b. Section 7 of the Endangered Species Act requires all Federal agencies to consult with the USFWS on all actions that may affect a threatened or endangered species or its habitat. The rules and requirements for these consultations are delineated in 50 CFR Part 402, which includes forms, substance, and timing.

c. Although SSC is not considered by the USFWS to have threatened and/or endangered species, it is possible that such species may be encountered. The site provides a stable habitat that could support several threatened and endangered species.

d. For this reason, any project or action that has the potential to impact habitat shall exercise caution during construction. NASA Environmental Management maintains a list of all species of concern, and their state and Federal protection status.

e. All SSC personnel shall consult with NASA Environmental Management prior to initiating any project that has the potential to impact threatened, endangered, or otherwise protected species.

f. All species shall be considered as protected unless otherwise directed by NASA Environmental Management.

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2.14.4 Landscape Management

a. SSC environmental landscaping goals are to use regionally native plants; design, use, or promote construction practices that minimize adverse effects on the natural habitat; prevent pollution; implement water-efficient practices; and create outdoor demonstrations. To this end, any landscape design shall:

1. Complement existing and planned structures.
2. Emphasize a unified site pattern, help define traffic arteries and create an overall consistent unity in the choice of trees, shrubs, and lawns.
3. Contribute to safety at intersections and crossings.
4. Consider the ultimate in growth, form, size, and color of the plants selected, and the cultural requirements such as moisture, drainage, and maintenance.
5. Reforest for aesthetic and utility considerations.
6. Correlate design with utility lines, storm drains, and sewer systems.
7. Utilize native species.

b. Benefits associated with implementation of these design criteria include the reduction in use of water, pesticides, and fertilizers. Also there will be a reduction in maintenance costs, an increase in erosion control, and utilization of hardy plants. By implementing the plan, SSC will promote regional identity and enhance wildlife habitat and biodiversity.

c. All projects that involve landscape design or have the potential to affect current landscape, wildlife, forested areas, and recreational areas shall be coordinated through NASA Environmental Management so that potential impacts can be properly assessed. Contact with NASA Environmental Management is encouraged to ensure that proposed actions comply with the SSC Master Plan. The Master Plan along with the Integrated Natural Resource Management Plan includes various supplementary plans and recommendations for economic development and management of the resources available at SSC. These resources include forestry products, wildlife, recreation, and transportation.

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2.14.5 Specific Requirements

NASA, resident agencies, contractors, commercial customers and concessionaires shall perform the specific actions outlined in Table 14.

Table 14 - Required Actions Related to Fish, Wildlife, and Protected Species

§	Action/Requirement	Responsible Party	Reporting Method	Frequency
2.14.2	Notification prior to activities that may alter or modify a stream or other natural body of water	NASA, Resident Agencies, Contractors, Commercial Customers, Concessionaires	PES to NASA Environmental Management	As required
2.14.2	Consult with USFWS and State regarding mitigation actions to protect wildlife	NASA Environmental	Official letter	Prior to projects which would alter waterways
2.14.3	Notification to Environmental Office upon sighting or otherwise encountering any species that may be threatened or endangered	NASA, Resident Agencies, Contractors, Commercial Customers, Concessionaires	Official letter	As required
2.14.3	Notification prior to activities that may affect protected species or their habitat	NASA, Resident Agencies, Contractors, Commercial Customers, Concessionaires	PES to NASA Environmental Management	As required
2.14.3	Consult with USFWS regarding projects which could affect protected species and their habitat (Section 7 consultation)	NASA Environmental	Official letter	Prior to project initiations
2.14.4	Notification regarding the landscaping activities inclusive of the utilization of native plants in accordance with the April 26, 1994, Executive Memorandum.	NASA, Resident Agencies, Contractors, Commercial Customers, Concessionaires	PES to NASA Environmental Management	As required

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2.15 Management of Lead-Containing Materials

2.15.1 Applicable Laws and Regulations

Requirements of the Federal Water Pollution Control Act (33 USCA § 1251 to 1387); Resource Conservation and Recovery Act (42 USCA § 6901 to 6992k); Clean Air Act (42 USCA § 7401 to 7671q); Occupational Safety and Health Act (29 USCA § 651 et seq.); 29 CFR 1910.1025; 29 CFR 1926.62; 40 CFR 52 and 81; and 40 CFR 261 shall be followed in the performance of management of lead-containing activities at SSC.

2.15.2 Lead-Containing Materials

- a. Lead-containing paint and paint primers were used at SSC for many years. SCWI-8500-0018-ENV provides an operations and maintenance plan for managing lead at SSC. This Plan defines a policy of management of lead-containing materials “in place” shall be followed in the performance of SSC activities. This means that, as long as lead-containing materials are intact and not posing a health or environmental hazard, they will be maintained “in place.”
- b. If such materials are damaged, or would be impacted by other work in the area, a strategy shall be developed to repair, remove, and/or replace the lead-containing materials.
- c. Controls specified in the Lead Hazard Control Plan shall be implemented and are inclusive of maintenance work practices, worker protection measures, medical monitoring and training for workers, record keeping, and waste disposal.
- d. NASA Environmental Management shall monitor design reviews to ensure regulatory requirements are addressed in projects involving lead-containing materials.

2.15.3 Lead Waste Disposal

- a. Scrap metal resulting from demolition activities shall be transported to the Landfill Recycling Staging Area or NASA provided containers for recycling. This includes scrap metal with lead-based coatings (the EPA has exempted this type of waste from the definition of hazardous waste).
- b. All other debris generated from operations where lead-based coatings are present shall be sampled and analyzed in accordance with EPA Method 1311, Toxicity Characteristic Leaching Procedure (TCLP). The results of the TCLP analysis will determine the hazard classification of the material that was sampled and if lead concentration is less than the regulatory level for this contaminant, the material may be disposed of in the SSC Class A landfill as non-hazardous waste.

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c. If the TCLP lead concentration is equal to or greater than the regulatory level for this contaminant, the material shall be handled and disposed of as hazardous waste. Hazardous waste management procedures can be found in SCWI-8500-0004-ENV.

2.15.4 Specific Requirements

NASA, resident agencies, contractors, commercial customers and concessionaires shall perform the specific actions outlined in Table 15.

Table 15 - Required Actions Related to Lead Management

§	Action/Requirement	Responsible Party	Reporting Method	Frequency
2.15.2	Notification prior to activities that may impact lead painted surfaces or other lead-containing materials	NASA, Resident agencies, Contractors, Commercial Customers	PES to NASA Environmental Management	As required
2.15.2	Training for workers involved in lead-related work	NASA, Resident Agencies, Contractors, Commercial Customers	Training Records/ TCRS	Annually
2.15.2	Medical monitoring for workers involved in lead-related work	SSC Medical Director	Medical Records	Annually
2.15.3	Request for collection and disposal of lead-contaminated waste	NASA, Resident Agencies, Contractors, Commercial Customers, Concessionaires	Form SSC-696F	As required

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2.16 Pollution Prevention and Sustainable Acquisitions

2.16.1 Applicable Laws and Regulations

Requirements of the Pollution Prevention Act of 1990, Solid Waste Disposal Act (Section 6002) as revised by the Resource Conservation and Recovery Act (42 USCA § 6901 to 6992k); Clean Air Act (42 USCA § 7401 to 7671q); Emergency Planning and Community Right-to-Know Act (42 USCA § 11001 to 11050); Use of Recovered Materials (FAR Part 23.4); Comprehensive Procurement Guideline for Products Containing Recovered Materials (40 CFR Part 247); and Executive Order 13423 Strengthening Federal Environmental, Energy, and Transportation Management and EO 13514 Federal Leadership in Environmental, Energy, and Economic Performance shall be followed in the performance of pollution prevention and acquisition activities at SSC.

2.16.2 Pollution Prevention, Waste Minimization, Recycling and Sustainable Acquisitions

a. Pollution prevention (P2) is reducing or eliminating waste at the source by modifying production processes, promoting the use of non-toxic or less-toxic substances, implementing conservation techniques, and re-using materials rather than putting them into the waste stream. Requirements to meet specific environmental goals come from several sources, including:

- Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding 2006 (MOU).
- EPA's Final Guidance on Environmentally Preferable Purchasing.
- Greening of Government Executive Orders.
- EPA's Comprehensive Procurement Guidelines for recovered content.
- USDA's Biobased Purchasing Program.
- ENERGY STAR® & DOE Federal Energy Management Program (FEMP) Product Efficiency Recommendations.
- Energy Policy Act of 2005.
- ASTM, LEED, Green Globes, and other rating systems and standards.
- And other 'best practices' as determined via industry and public comment.

b. SCWI-8500-0017-ENV delineates the responsibilities and establishes the procedures relevant to P2 inclusive of required recycling activities and sustainable acquisitions. This document shall be followed in the performance of SSC activities.

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- c. Congress established a national policy that requires the generation of hazardous waste be reduced or eliminated wherever feasible. SSC has a waste minimization program, which involves hazardous product substitution, waste stream segregation, material handling improvement, procurement of environmentally preferred items, and increased recycling activities.
- d. All products listed in 40 CFR 247, Subpart B, shall be purchased with the required percentage of recycle material, unless a waiver is granted in accordance with regulations.
- e. The quantities of items recycled and the items bought with the required recycled content shall be recorded and reported.
- f. SSC presently recycles office/copier paper, toner cartridges, computer paper, Freon, mercury, cardboard, batteries, used oil, plastics, and scrap metal. At a minimum, all discarded paper and cardboard shall be recycled at a Federal facility. Aluminum can recycling is also offered onsite in areas that sell products containerized in aluminum cans.
- g. SSC's compliance with EO 13423, EO 13514 and NPR 8830.1 included the implementation of an online purchase request and order process that alerts requestors and buyers of the requirement to procure environmentally preferred items. This purchase request and order process shall be used to ensure the acquisition of approved products. This system includes an on-line process to obtain an approved NASA/SSC Sustainable Procurement Request for Waiver, Form SSC-747, when one of the four EO justifications that allow for exceptions is applicable.

2.16.3 Specific Requirements

NASA, resident agencies, contractors, commercial customers and concessionaires shall perform the specific actions outlined in Table 16.

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Table 16 - Required Actions Related to Pollution Prevention

§	Action/Requirement	Responsible Party	Reporting Method	Frequency
2.16.2	Update of the P2 Plan	NASA & FOSC Environmental	Plan	As required
2.16.2	Recycling	NASA, Resident Agencies, Contractors, Commercial Customers, Concessionaires	N/A	Daily
2.16.2	Reporting of Recycling activities	Recycling Contractor	Spreadsheet	Quarterly
2.16.2	Reporting of Recycling activities	FOSC Environmental Services	Report in NETS	As required by NASA HQ
2.16.2	Purchase sustainable materials as dictated by FAR Part 23	NASA, Contractors, (all other agencies are subject to their agency guidance)	Purchase Request Material Request	As required
2.16.2	Request waiver to purchase non- compliant items	NASA, Contractors,	Form SSC-747	As required

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2.17 Energy Management and Conservation

2.17.1 Applicable Laws and Regulations

Requirements of the National Energy Policy Act (42 U. S. C. 6374, et seq) as amended, Encouraging the Use of Alternative Fuels; National Energy Conservation Policy Act (42 U. S. C. 8251-8259) as amended by the Federal Energy Management Improvement Act of 1988 (P. L. 100-615); National Energy Policy Act (42 U. S. C. 8287) as amended, Shared Energy Savings; Energy Policy Act (P. L. 102-486, 106 Stat. 2776); 10 CFR Part 435, "Energy Conservation Voluntary Performance Standards for New Buildings; Mandatory for Federal Buildings"; 10 CFR Part 436, "Federal Energy Management and Planning Programs"; Energy Policy Act of 2005; Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding; Energy Independence and Security Act of 2007; EO 13423 Strengthening Federal Environmental, Energy, and Transportation Management; and EO 13221, Energy Efficient Standby Power Devices and NPR 8570.1, Energy Efficiency and Water Conservation Procedures and Requirements shall be followed in the performance energy management and conservation activities at SSC.

2.17.2 General Requirements

- a. All elements of the Federal government are obligated to pursue and support energy conservation measures. NASA, as a direct Federal consumer of energy, has an obligation to establish and pursue a vigorous long-term program of energy conservation.
- b. Therefore, NASA, as a part of its management function at SSC, shall provide the necessary guidance to other agencies in order to institute an effective energy management/conservation program in compliance with our national energy management goals, particularly the Federal Energy Management Improvement Act.
- c. NASA, resident agencies, contractors, commercial customers, and concessionaires shall appoint an individual energy coordinator for each building or facility they occupy.
- d. The Agency Energy Coordinator (AEC) shall be responsible for monitoring his or her assigned area for effective energy utilization and for assuring implementation of energy conservation measures as set forth here and in SPLN-8500-0002, Energy Efficiency and Water Conservation 5-Year Plan.
- e. The AECs shall coordinate all facility requirements/issues with their designated Facility Manager.

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2.17.3 Specific Requirements

NASA, resident agencies, contractors, commercial customers and concessionaires shall perform the specific actions outlined in Table 17.

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Table 17 - Required Actions Related to Energy Management and Conservation

§	Action/Requirement	Responsible Party	Reporting Method	Frequency
2.17.2	Coordination with resident agencies and NASA HQ	NASA Energy Program Manager	Open	As required
2.17.2	Submission of data to the SSC Energy Manager	NASA, Resident Agencies, Contractors, Commercial Customers, Concessionaires	N/A	As required
2.17.2	Input of Energy Data Calls	NASA & FOSC Energy Specialist	Report and NETS	Quarterly/ Annually
2.17.2	Compliance with regulatory requirements	NASA, Resident Agencies, Contractors, Commercial Customers, Concessionaires	N/A	Daily
2.17.2	Energy Surveillance	NASA, Security contractor	Form SSC- 53	As required
2.17.2	Response to a violation	NASA, Resident Agencies, Contractors, Commercial Customers, Concessionaires	Form SSC-53A	As required
2.17.2	Monitoring assigned areas	Agency Energy Coordinator, Facility Manager	N/A	Daily

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APPENDIX A - ACRONYMS

ACM	Asbestos Containing Material
AEC	Agency Energy Coordinator
CAA	Clean Air Act
CCR	Consumer Confidence Report
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act (also known as Superfund)
CFATS	Chemical Facility Anti-Terrorism Standards
CFR	Code of Federal Regulations
COE	U.S. Army Corps of Engineers
COI	Chemical of Interest
CWA	Clean Water Act (Federal Water Pollution Control Act)
DHS	Department of Homeland Security
EA	Environmental Assessment
EO	Environmental Officer
EO (s)	Executive Order (s)
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
EICP	Environmental Integrated Contingency Plan
EIS	Environmental Impact Statement
EMS	Environmental Management System
ENV	Environmental
ERD	Environmental Resources Document
FAR	Federal Acquisition Regulation

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FEMP	Federal Energy Management Program
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FOS	Facility Operating Services
GHG	Greenhouse Gas
HMIS	Hazardous Materials Inventory System
HPO	Historic Preservation Officer
HPP	Historic Preservation Plan
ICRMP	Integrated Cultural Resources Management Plan
ICP	Integrated Contingency Plan
ID	Identification
IPM	Integrated Pest Management
LSC	Laboratory Science Contractor
LTOMP	Long Term Operational and Monitoring Plan
MDEQ	Mississippi Department of Environmental Quality
MSDH	Mississippi Department of Health
NAGPRA	Native American Graves Protection and Repatriation Act
NASA	National Aeronautics and Space Administration
NEPA	National Environmental Policy Act
NFA	No Further Action
NPDES	National Pollution Discharge Elimination System
NPR	NASA Procedures and Requirements
NRC	National Response Center
NRHP	National Register of Historical Places

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PA	Programmatic Agreement
PCB	Polychlorinated Biphenyl
PES	Preliminary Environmental Survey (Form SSC-696M)
RCRA	Resource Conservation and Recovery Act
REC	Record of Environmental Consideration
SARA	Superfund Amendments and Re-authorization Act
SCWI	Stennis Common Work Instruction
SDS	Safety Data Sheet
SDWA	Safe Drinking Water Act
SPCC	Spill Prevention Control and Countermeasure Plan
SPLN	Stennis Plan
SPR	Stennis Procedures and Requirements
SSC	Stennis Space Center
SWPPP	Stormwater Pollution Prevention Plan
SWR	Stennis Work Request
TCLP	Toxicity Characteristic Leaching Procedure
T&E	Threatened and Endangered Species
TOC	Test Operations Contractor
TRI	Toxic Release Inventory
TSCA	Toxic Substances Control Act
USCA	United States Codes of Authority
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service

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USGS

United States Geological Survey

APPENDIX B - DEFINITIONS

Code of Federal Regulations - The regulations published in the Federal Register by the Executive Departments and agencies for implementation of Federal Congressional Acts.

Concessionaires - Companies that provide services for special amenities that are outside of the general scope of operational requirements, such as banking, snack bar, laundry, and restaurants.

Threatened or Endangered Species - Any species (including subspecies), which is in danger of extinction throughout all or a significant portion of its range.

Executive Order - Presidential orders to agencies of the Executive Branch of the Federal Government that have the weight of law.

Hazardous Waste Management - Systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous wastes.

Hazardous Waste Sites - A location where hazardous wastes are stored, treated, incinerated, or otherwise disposed.

Listed Species - Any species (including subspecies) of fish, wildlife, or plants listed as either endangered or threatened in accordance with 50 CFR 17.11 and 17.12.

Mississippi Department of Environmental Quality - The environmental regulatory and enforcement authority for the State of Mississippi.

PCB - Polychlorinated Biphenyl - Any of a class of toxic aromatic compounds, often formed as waste in industrial processes whose molecules contain two benzene rings in which hydrogen atoms have been replaced by chlorine atoms.

Pesticide - Any substance, organic or inorganic, used to destroy or inhibit the action of plant or animal pests; the term thus includes insecticides, herbicides, rodenticides, miticides, etc.

Pollution - Any substance introduced into the environment (not normally present) that is potentially toxic or otherwise objectionable.

Radioactive Material - A material that undergoes spontaneous decay by the emission of energy in the form of high energy rays. Radioactive materials are regulated by 10 CFR.

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Recycling - Reclaiming a material for purposes of beneficial reuse.

Resource Conservation and Recovery Act - The Federal Act which governs solid and hazardous wastes.

United States Code (USCA) - Federal Congressional Acts.

United States Environmental Protection Agency (USEPA) - Agency of the Federal Government with environmental protection regulatory and enforcement authority.

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APPENDIX C - LAWS AND REGULATIONS

C.1 United States Codes

7 USCA 136, Federal Insecticide, Fungicide, and Rodenticide Act.

42 USCA 11001, Emergency Planning and Community Right-to-Know Act.

15 USCA 2601, Toxic Substance Control Act.

16 USCA 1536, Endangered Species Act of 1973.

16 USCA 461, Historic Sites, Buildings and Antiquities Act.

16 USCA 469, Archaeological and Historic Preservation Act of 1974.

16 USCA 470, National Historic Preservation Act of 1966.

16 USCA 1361, Marine Mammal Protection Act.

16 USCA 1451, Coastal Zone Management Act of 1972.

16 USCA 2901, Fish and Wildlife Conservation Act.

33 USCA 401, The Rivers and Harbors Act of 1899.

33 USCA 1251, Federal Water Pollution Control Act (Clean Water Act).

33 USCA 1401, Marine Protection, Research, and Sanctuaries Act of 1972, as amended (16 USCA 1431).

42 USCA 300f, Safe Drinking Water Act.

42 USCA 2021, Atomic Energy Act of 1954.

42 USCA 4371, National Environmental Policy Act of 1969 as amended by the Environmental Quality Improvement Act of 1970.

42 USCA 4901, Noise Control Act of 1972.

42 USCA 6374, National Energy Conservation Policy Act, Encouraging the Use of Alternative Fuels.

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42 USCA 6901, Resource Conservation and Recovery Act.

42 USCA 7401, Clean Air Act.

42 USCA 8251, National Energy Conservation Policy Act, Federal Energy Management Improvement Act of 1988.

42 USCA 8287, National Energy Conservation Policy Act, Shared Energy Savings.

41 USCA 9601, Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) as amended by Superfund Amendments and Reauthorization Act (SARA).

C.2 Code of Federal Regulations

6 CFR 27, Chemical Facility Anti-Terrorism Standards.

10 CFR 20, Nuclear Regulatory Standards for Protection Against Radiation.

10 CFR 435, Energy Conservation Voluntary Performance Standards for New Buildings; Mandatory for Federal Buildings.

10 CFR 436, Federal Energy Management and Planning Programs.

14 CFR 1204.15, Intergovernmental Review of NASA programs and activities.

14 CFR 1216, NASA Environmental Quality.

15 CFR 930, Federal Consistency with Approved Coastal Management Programs.

29 CFR 1910.1200, Toxic and Hazardous Substances.

29 CFR 1910.120, Hazardous Waste Operations and Emergency Response.

33 CFR 322, Permits for Structures of Work In or Affecting Navigable Waters of the United States.

33 CFR 323, Permits for Discharge of Dredged or Fill Material into Waters of the United States.

33 CFR 330, Nationwide Permits.

36 CFR 60, National Register of Historic Places.

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36 CFR 800, Protection of Historic Properties.

40 CFR 50-88, Air Programs.

40 CFR 112, Oil Pollution Prevention.

40 CFR 122.26, Stormwater Discharges.

40 CFR 140-149, Subchapter D, Water Programs.

40 CFR 141, National Primary Drinking Water Regulations.

40 CFR 143, National Secondary Drinking Water Standards

40 CFR 150-186, Subchapter E, Pesticide Programs.

40 CFR 201-211, Noise Abatement Programs.

40 CFR 230, Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material.

40 CFR 240-281, Subchapter I, Solid Wastes.

40 CFR 247, Subpart B, Comprehensive Procurement Guideline for Products Containing Recovered Materials.

40 CFR 261, Listed Hazardous Wastes.

40 CFR 264, Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.

40 CFR 265, Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.

40 CFR 266, Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities.

40 CFR 270, Hazardous Waste Permit Program.

40 CFR 280, Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks.

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40 CFR 300, National Oil and Hazardous Substances Pollution Contingency Plan.

40 CFR 302, Designation, Reportable Quantities and Notification.

40 CFR 311, Worker Protection.

40 CFR 350, Trade Secrecy Claims for Emergency Planning and Community Right-to-Know.

40 CFR 355, Emergency Planning and Notification.

40 CFR 372, Toxic Chemical Releases.

40 CFR 700-750, Subchapter R, Toxic Substances Control Act.

40 CFR 761, Polychlorinated Biphenyls.

40 CFR 1500-1508, Chapter V, Council on Environmental Quality, NEPA Regulations.

49 CFR 171-195, Department of Transportation, Hazardous Material Regulations.

50 CFR 402, Interagency Cooperation, Endangered Species Act of 1973.

C.3 Executive Orders

Executive Order 11514, Protection and Enhancement of Environmental Quality.

Executive Order 11593, Protection and Enhancement of the Cultural Environment.

Executive Order 11988, Floodplain Management.

Executive Order 11990, Protection of Wetlands.

Executive Order 11991, Amends 11514.

Executive Order 12088, Federal Compliance With Pollution Control Standards.

Executive Order 12114, Environmental Effects Abroad of Major Federal Actions.

Executive Order 12372, Intergovernmental Review of Federal Programs.

Executive Order 12580, Superfund Implementation.

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Executive Order 12759, Federal Energy Management.

Executive Order 12902, Energy Efficiency and Water Conservation at Federal Facilities.

Executive Order 13101, Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition.

Executive Order 13123, Greening the Government Through Efficient Energy Management.

Executive Order 13148, Greening the Government Through Leadership In Environmental Management.

Executive Order 13221, Energy Efficient Standby Power Devices.

Executive Order 13287, Preserve America.

Executive Order 13423, Strengthening Federal Environmental, Energy, and Transportation Management.

Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance.

C.4 State Regulations

Mississippi Code Annotated, Title 17, "Mississippi Solid Waste Disposal Act of 1974", and its amendments; Sections 17-17-1 through 17-17-59 and 17-17-213, 17-17-229, 17-17-231, 21-27-207, and 49-17-17.

Mississippi Code Annotated, Title 49, "Mississippi Underground Storage Tank Act" and its amendments, Sections 49-17-401 through 49-17-433.

Mississippi Department of Environmental Quality Air Regulations APC-S-1 through APC-S-6.

Mississippi Department of Environmental Quality Hazardous Waste Management Regulations.

Mississippi Department of Environmental Quality Non-Hazardous Waste Management Regulations.

Mississippi Pesticide Application Law of 1975.